

## BEST AVAILABLE COPY

## REMARKS

The present application now contains claims 1-79. Claims 77-79 are new. Claims 21, 27, 43, 57 and 60 were amended.

Claims 43-46 were indicated as containing allowable subject matter. Accordingly, claim 43 was amended to convert it into independent form. Claim 57 was amended for purposes of finding proper antecedent in claim 56.

Claims 64-65 and 74 stand rejected under 35 U.S.C. 102(e) as being anticipated by Subramaniam (US patent 5,859,972). Applicants respectfully traverse the rejection and state that the Examiner has not established a *prima facie* case of anticipation. Claim 64 requires receiving from the server image reconstruction software for the user's computer and reconstructing a diagnostic quality image using the reconstruction software on the user's computer.

Subramaniam does not mention receiving from the server image reconstruction software. The passages referred to by the Examiner do not suggest to include image reconstruction software in software received by the user from the server.

The referenced passage on Column 11, lines 43-47 reads: "Scripts written in Java can be sent to the user's browser and executed there, allowing interactive viewers to remain within the web browser and alleviating the need to install special viewers and applications for each program". As indicated by the Examiner, this passage refers to the tools or helper applications on Column 9, lines 40-52. These applications may be used to either display data that the browser is incapable of displaying, or to place data within a secondary application for manipulation. It is noted that a 'viewer' can be used for various types of data and not necessarily images.

Since Subramaniam only suggests supplying software from the server for tasks which the browser is incapable of performing, modifying Subramaniam to transfer software including image reconstruction software to the client, is not suggested or hinted by Subramaniam. Therefore, it would not be obvious to modify Subramaniam to receive image reconstruction software from the server, as nearly all browsers have built-in image display support, which does not require any external software or JAVA applets. The use of the image reconstruction software received from the server, in claim 64, is not directed primarily at allowing display of the images, but rather at allowing display of the images in a proprietary format that allows other benefits, such as convenient transmission and/or manipulation of the images.

The dependent claims are patentable at least because they depend on an allowable claim, but may add further patentability over Subramaniam. Claim 65, for example, requires that the image reconstruction software be used in requesting specific image data. In Subramaniam, the Java applet is used to interact with data formats not supported by the browser and there is no mention or suggestion to use the Java applet to request specific image data.

Claims 1-20, 30-36, 47-55, 58-59, 66-70, 72-73 and 75-76 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam (US patent 5,859,972) in view of Inga (US patent 5,416,602).

Claims 37-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam (US patent 5,859,972) in view of Inga (US patent 5,416,602) and further in view of Ward (US patent 5,793,735).

Claims 41-42 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam (US patent 5,859,972) in view of Inga (US patent 5,416,602) and further in view of Hirabayashi (US patent 6,101,282).

Claim 1 requires:

- (a) receiving from the server image reconstruction software for the user's computer;
- (b) progressively transmitting the requested specific image data over the network from the server to user's computer; and
- (c) reconstructing a diagnostic quality image, from the progressively received image data, using the reconstruction software on the user's computer.

According to the Examiner, Subramaniam describes (a) and Inga describes (b) and (c) and it would have been obvious to combine the receiving of reconstruction software of Subramaniam with the progressive transmitting of image data of Inga.

Applicants respectfully traverse the rejection and state that the Examiner has not established a *prima facie* case of obviousness, since the Examiner has not shown a proper reasoning to combine the references.

First, it is noted that, as explained above, Subramaniam does not describe receiving from the server image reconstruction software, but rather software for tasks not supported by the browser. If Subramaniam were to relate to images it would use standard image compression protocols, such as JPEG or TIF.

Second, a reader of Inga would not think to combine its teachings with those of Subramaniam, since Inga relates to dedicated hardware client terminals, while Subramaniam is only useful for non-dedicated terminals.

Inga specifically requires dedicated client systems that include dedicated hardware, as mentioned on col. 5, lines 46-52: "Two specific presentation terminal types are envisioned in the preferred embodiment of the system, a modified personal computer terminal for use in a physician's office, hospital nurses' station and the like, and a large screen presentation terminal with remote controlled interaction primarily for operating room use." Specifically, on col. 6, lines 1-4, Inga states that "Each terminal consists of a standard high performance personal computer with one or more data source interfaces such as RAM card, CD-ROM disk or data modem, a decompression graphics interface circuit and graphics display." Such a decompression circuit is not included in standard computer systems and therefore only a dedicated terminal would be considered by the reader of Inga. The fact that Inga only contemplated using dedicated hardware is even more clear from Fig. 6 and its description on column 16, lines 42-68.

There is no point in downloading the software run by the client terminals of Inga over slow communication channels if the terminals are dedicated terminals which require special installation for their task. In fact, a reader of Subramaniam and Inga would not see any reason to expect their combination to work, without installing dedicated hardware.

Third, it would not be obvious to provide the image reconstruction software of Inga to the client using the method Subramaniam, since this would be counter to the goal of the software of Inga. The software of Inga is directed at fast communicating of image files to remote locations both cost effectively and within a reasonable time interval (abstract, col. 5, lines 9-11). The telecommunication means 18 of Inga are directed at achieving useful data image transmission in less than one minute (col. 12, lines 26-28). The combined compression technology of Inga is claimed to reduce data transmission time (at 9600 baud) to approximately 43 seconds for an initial useful medical image. Transmitting the reconstruction software over a 9600 baud connection would substantially lengthen the time until an initial useful medical image is displayed. Combining Inga to Subramaniam would substantially lengthen the transmission time until an initial image is displayed, without any reason.

It is noted that a software of 50K would just about double the time required until an initial image is displayed. Although applicants cannot accurately estimate the size of the software that needs to be run on the terminals of Inga, it is clear that they are quite large. This

is because, as stated on column 5, line 34, the compression methods of the software are considered complex, and the software includes all the technologies listed on col. 5, lines 20-26. Sizes of various Java applets, which can be used for comparison, are discussed, for example, at [http://www.freewarehome.com/Programming/Java\\_Applets\\_t.html](http://www.freewarehome.com/Programming/Java_Applets_t.html).

The dependent claims are patentable at least because they depend on an allowable claim. New claim 77 requires that receiving from the server image reconstruction software is performed in each session in which the user receives progressively transmitted images. This adds further patentability over Inga, as even if for some reason (which applicants cannot think of) it would be contemplated to download the software of a dedicated system over a communication network, there is no reason to download the software of the dedicated system in each image transmission session.

New claim 78 requires that receiving from the server image reconstruction software is performed after requesting image data by the user.

Claims 56-57 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam (US patent 5,859,972) in view of Inga (US patent 5,416,602). Applicant respectfully traverses the rejection and states that the Examiner has not established a *prima facie* case of unpatentability, as at least one of the requirements of claim 56 is not taught or suggested by either of the cited references.

Claim 56 requires segmenting an image into background parts and tissue parts and transmitting the tissue parts first. This is not taught by either of the cited references. In Inga (Column 12, lines 29-52), the user may outline a specific region of interest such as a lesion or tumorous growth for more detailed study. There is no mention of the user outlining background parts versus tissue parts. The layers of Inga, referred to by the Examiner, are layers of detail and do not relate to selection of parts of the image to be transmitted first. Furthermore, Inga does not relate to dividing an image to separate background and tissue parts.

The dependent claims are patentable at least because they depend on claim 56. At least, new claim 79, however, adds further patentability over Inga. Claim 79 requires that the segmentation is performed automatically. In contrast, Inga only suggests segmentation by the user.

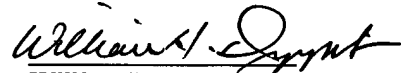
Claims 21-29, 60-63 and 71 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam (US patent 5,859,972) in view of Inga (US patent 5,416,602).

Applicants amended claims 21, 27 and 60 to include the limitation of receiving from the server image selection software for the user's computer. As discussed above, regarding

claim 1, this feature is not obvious in view of Subramaniam and Inga. Therefore, these claims as well as their dependent claims are patentable.

In view of the above remarks, the claims are believed to be ready for allowance. A notice of allowance is respectfully awaited. In the event that the Examiner cannot issue such a notice, the Examiner is respectfully requested to call the undersigned at (toll free) +1 (877) 428-5468. This telephone connects directly to the undersigned's office in Israel, which is 7 hours ahead of Washington. Our normal work week is Sunday through Thursday and the undersigned is generally available until 11:00 AM, Washington time.

Respectfully submitted,  
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December 20, 2004  
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